**Algebra 1B, Period \_\_\_\_ Name:**

**Unit 3 Practice Test Date:**

**I. Vocabulary and Conceptual Understanding**

What is the difference between the *solutions* to the *linear* *equation* and the *solutions* to the *linear inequality* ?

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Can a *system of linear inequalities* have “no solution”? Explain.

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How do you know if a coordinate point is a *solution* to a *linear inequality?*

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Compare and contrast *linear equations* with *linear inequalities* using the Venn diagram below.

**II. Multiple Choice** Find the answers that makes the statement true.

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| 1. Which of the following coordinate points are solutions to the inequality ?   1. (1, 2) 2. (1, 1) 3. (1, 0) 4. (-1, -4) 5. (-2, -8) | 2. If 60 – x < 20, then x could be   1. 10 2. 30 3. 40 4. 50 5. 60 | |
| 3. Which ordered pair is in the solution  set of the system of linear inequalities  graphed below?  (A) (4, 0)  (B) (-5, 7)  (C) (5, 3)  (D) (-7, -2)  (E) (-2, 1) | | |
| 4. Which of the following are solutions to the system and ?   1. (0, -2) 2. (1, 1) 3. (5, -1) 4. (6, 0) | |

**III. Free Response Problems**

Solve or graph the following problems. Be careful with your lines!

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| coordinate plane  5. Graph the inequality. |
| coordinate plane  6. Graph the inequality. |
| coordinate plane7. Graph the system of inequalities.  Clearly mark the solution region. |
| coordinate plane8. Graph the system of inequalities.  Clearly mark the solution region. |
| 9. Make a number line graph of each inequality.  x < -8 x > 5 |
| coordinate plane10. Graph the system of inequalities.  Clearly mark the solution region. |
| 11. Circle ***all* possible solutions** to the inequality below.    (-4, 5) (3, -2) (2, -3) (-1, 2) (0, 0) (3, 1) |
| 12. Write the inequalities for the given system of inequalities below. |